

Claims

1. An apparatus for loading, transporting and stacking bales of hay comprising:
a vehicle frame supporting an operator cab forward of a tiltable bed which is tiltable to a near vertical position, the operator cab having a front and a top;
a track extending from the front of the cab to above the top of the cab;
a means to engage and move a bale;
wherein the means to engage and move the bale, engages the bale at the front of the cab and moves the bale along the track to above the top of the cab and releases the bale onto the bed inclined to meet the track above the top of the cab.
2. The apparatus of claim 1, wherein said track is an arc.
3. The apparatus of claim 2, wherein said arc has a radius of about 98 degrees.
4. The apparatus of claim 1, wherein said track comprises at least two braced rail members in a spaced apart relationship.
5. The apparatus of claim 1, wherein said means to engage and move a bale comprises a backstop slidably engaging said track and comprising at least two grasping arms pivotally connected to the backstop on opposing sides of the backstop.
6. The apparatus of claim 5, wherein said backstop is slid along said track by a winch.
7. The apparatus of claim 1, wherein said tiltable bed further comprises a stop to prevent bales loaded on said inclined bed from leaving said inclined bed.
8. The apparatus of claim 7, wherein said stop is at least two prongs at a rear of said bed and extending orthogonally from a surface of said bed.

9. The apparatus of claim 1, wherein said tiltable bed further comprises a means to catch bales being loaded onto said bed.

10. The apparatus of claim 9, wherein said catch means comprises a retrieval plate positioned near a surface of said bed and at least one spur extending perpendicular to the plate to catch and hold bales.

11. The apparatus of claim 9, wherein said catch means controllably moves a bale toward a rear of said bed and toward a front of said bed.

12. The apparatus of claim 11, wherein said catch means comprises a winch.

13. The apparatus of claim 1, wherein said apparatus further comprises a means to secure bales to said tiltable bed.

14. The apparatus of claim 13, wherein said securing means comprises at least one grapple laying below a surface of said bed that extend through said bed to capture and hold loaded bales to said bed.

15. The apparatus of claim 1, further comprising a feeding means, wherein said feeding means disperses sections of a bale loaded on said apparatus to the ground.

16. The apparatus of claim 15, wherein said feeding means comprises a track near a front of said tiltable bed, the track running crosswise on said bed, a push plate and feeding tines, wherein said push plate advances said bale along the track toward the feeding tines which disperses said sections of the bale sequentially.

17. The apparatus of claim 16, wherein said feeding means is driven by a winch.

18. An apparatus for loading, transporting and stacking bales of hay comprising:

a vehicle frame supporting an operator cab forward of a tiltable bed, the operator cab having a front and a top, the bed tiltable to a near vertical position and comprising a stop to prevent bales loaded on the bed from leaving the bed, the stop comprising at least two prongs at a rear of the bed and extending orthogonally from a surface of the bed, the bed further comprising a catch means to catch bales being loaded onto the bed, the catch means comprising a retrieval plate positioned near the surface of the bed and at least one spur extending perpendicular to the plate to catch and hold the bales, wherein said catch means can be controllably moved toward the rear of the bed and toward a front of the bed;

a track extending from the front of the cab to above the top of the cab;

a means to engage and move a bale comprising a backstop slidably engaging said track and comprising a least two grasping arms pivotally connected to the backstop on opposing sides of the backstop;

wherein the means to engage and move the bale, engages the bale at the front of the cab and moves the bale along the track to above the top of the cab and releases the bale onto the bed inclined to meet the track above the top of the cab.

19. The apparatus of claim 18, further comprising a feeding means comprising a track near said front of said tiltable bed, the track running crosswise on said bed, a push plate and feeding tines, wherein said push plate advances said bale along the track toward the feeding tines which disperses sections of a bale sequentially to the ground.

20. A method of feeding round bales of hay, the method comprising the steps of:

moving a round bale on an apparatus for loading, transporting and stacking bales of hay comprising, a vehicle frame supporting an operator cab forward of a tiltable bed, the operator cab having a front and a top, the bed tiltable to a near vertical position and comprising a stop to prevent bales loaded on the bed from leaving the bed, the stop comprising at least two prongs at a rear of the bed and extending orthogonally from a surface of the bed, the bed further comprising a catch means to catch bales being loaded onto the bed, the catch means comprising a retrieval plate positioned near the surface of the bed and at least one spur extending perpendicular to the plate to catch and hold the bales, wherein said catch means can be controllably moved toward the rear of the bed and toward a front of the bed;

a track extending from the front of the cab to above the top of the cab;

a means to engage and move a bale comprising a backstop slidably engaging said track and comprising a least two grasping arms pivotally connected to the backstop on opposing sides of the backstop;

wherein the means to engage and move the bale, engages the bale at the front of the cab and moves the bale along the track to above the top of the cab and releases the bale onto the bed inclined to meet the track above the top of the cab, from the bed toward an upper end of the track using the catch means;

grasping the bale at the upper end of the track using the bale engaging and moving means to move the bale to a base of the track near the ground;

releasing the bale to the ground;

cutting the strings binding the bale;

lifting the bale using the bale engaging and moving means to loosen the bale;

pushing the bale with the bale engaging and moving means to unroll the bale for feeding.